Palavras-chaves: bovine, cell culture, rabies, sensitivity, Virus Isolation

PCV3 DETECTION IN CO-INFECTION WITH OTHER VIRUSES IN LUNGS OF PIGS WITH RESPIRATORY DISEASE

Autores Danielle Gava [1], Vanessa Haach [2], Rejane Schaefer [1]
Instituição [1] Embrapa Suínos e Aves - Embrapa Suínos e Aves (BR 153, Km 110, Vila Tamandua, CEP 89715-899, Concórdia - SC, Brasil), [2] UFRGS - Universidade Federal do Rio Grande do Sul (Rua Sarmento Leite, 500, CEP 90050-170, Porto Alegre - RS, Brasil)

Resumo

Porcine circovirus type 3 (PCV3) is a newly emerging virus which has been associated with several outcomes and lesions, including porcine dermatitis and nephropathy syndrome, respiratory disease, reproductive failure, and myocarditis in fetuses. However, PCV3 has also been detected in healthy pigs, without any clinical signs. Although PCV3 belongs to *Circoviridae* family, together with porcine circovirus type 2 (PCV2), PCV3 genome is ~300nt larger than PCV2. Co-infection of PCV2 with other viruses as porcine parvovirus (PPV1), porcine parvovirus 4 (PPV4) and torque-teno sus virus (TTSuV1 and TTSuV2) has been implicated in the PCV2 disease development. In this study, PCV3 detection is reported in lungs of pigs infected with influenza A virus (IAV), and in association with PCV2, PPV1, PPV4, TTSuV1 and TTSuV2 viruses. From a total of 87 lung samples, previously considered as positive to IAV by RT-PCR and immunohistochemistry, 13 (14.9%) lungs were also positive to PCV3 by PCR. The virus identity was confirmed by the sequencing of a 330nt fragment of the cap gene. PCV3 DNA was detected in samples collected since 2010 and in association with IAV and other DNA viruses. Three lung samples presented double infection (PCV3 + PCV2 or TTSuV2). Triple infection was detected in five samples (PCV3 + TTSuV2 + PCV2 or TTSuV1). Finally, four samples had PCV3 in association with PCV2, PPV1, TTSuV1 and TTSuV2. The most prevalent virus detected in association with PCV3 was TTSuV2. It was presented in 11 out of 13 (84,6%) PCV3 positive samples. Here, PCV3 was detected in lungs in co-infection with other swine viruses. The detection of PCV3 in pigs with IAV infection since 2010 is a newly and interesting finding. Although PCV3 has been described in healthy and diseased pigs, as the only virus or in association with other pathogens, its possible pathogenic role in swine is still unclear. Further studies and more data will be necessary to clarify the PCV3 origin, its possible role as trigger in other diseases and also its impact on pig health.

Financial support: EMBRAPA

Palavras-chaves: PCV3, Swine, Co-infection, PCR

ANALYSIS OF GENE EXPRESSION PROFILES IN NORMAL AND INFECTED EPITHELIAL TISSUE OF COWS WITH PAPILLOMATOSIS

Autores Gerlane dos Santos Barros [1], Débora Machado Barreto [1], Marcus Vinicius de Aragão Batista [1]
Instituição [1] UFS - FEDERAL UNIVERSITY OF SERGIPE (SÃO CRISTÓVÃO, SE (CIDADE UNIV. PROF.